

ABSTRACT OF THE DISCLOSURE

An Extramedullary system of alignment for total knee arthroplasties uses a small diode laser at the center of the knee adjustable to the longitudinal axis of the femur to triangulate the center of the femoral head. It utilizes a V-Frame positioning device that fits into the distal femoral intercondylar notch and is tangent to the articular surfaces of the notch. It is also parallel to the anterior femoral cortex by using a removal tongue flange that sits flat on the filed surface of the anterior cortex. This prepositions the Distal Femoral Resector Guide within a few degrees of the center of the femoral head. An adjustment knob on the V-Frame pivots the distal femoral resector guide to the exact center of the femoral head for that particular patient accomplishing fine adjustment of the longitudinal axis of the femur. There is only one position where the laser beam will go through the center of the target no matter where you position the leg and that is when the target's bulls-eye is exactly over the rotational center of the femoral head. Since the laser confirms this position, the surgeon is assured that the alignment is accurate. The Distal Femoral Resector Guide is then fixed to bone with fixation pins and the resection made with a power saw. The laser is moved to the target mount to act as a longitudinal "laser ruler" for the remainder of the operation.